

CLAIMS

1. A transmission power control apparatus comprising:
a first and second variable amplifying circuits that
5 have different gain resolutions and amplify an input
signal;
a correction value calculator that calculates a
correction value to assure the accuracy of transmission
power;
10 a transmission power specifier that specifies
transmission power to be outputted to a communicating
party based on a signal transmitted from the communicating
party;
a transmission power calculator that calculates
15 transmission power by correcting the specified
transmission power with the correction value; and
a set value calculator that calculates gain values
to be set on the first and second variable amplifying
circuits based on the transmission power calculated by
20 the transmission power calculator.
2. A transmission power control apparatus comprising:
a first variable amplifying circuit that amplifies
an input signal;
25 an amplitude controller that performs amplitude
control of an I-channel signal and a Q-channel signal;
a correction value calculator that calculates a

correction value to assure the accuracy of transmission power;

a transmission power specifier that specifies transmission power to be outputted to a communicating
5 party based on a signal transmitted from the communicating party;

a transmission power calculator that calculates transmission power by correcting the specified transmission power by the correction value;

10 a set value calculator that calculates a gain value to be set on the first variable amplifying circuit based on the transmission power calculated by the transmission power calculator; and

an amplitude value calculator that calculates an
15 amplitude value to be set on the amplitude controller based on the corrected transmission power calculated in the transmission power calculator.

3. The transmission power control apparatus according
20 to claim 1, wherein the correction value calculator comprises a storage that stores environment characteristic correction values to compensate for deterioration in the accuracy of transmission power caused by frequency characteristics and temperature
25 characteristics, and when a change occurs in environment, calculates a correction value after the change in environment, using an environment characteristic

correction value stored in the storage.

4. The transmission power control apparatus according to claim 1, wherein the correction value calculator
5 comprises an error calculator that calculates an error between the transmission power specified in the transmission power specifier and actual transmission power actually outputted to the communicating party, and based on the transmission power specified by the
10 transmission power specifier, determines whether or not correction of the error is reflected in calculation of the correction value.

5. The transmission power control apparatus according to claim 3, wherein the correction value calculator
15 comprises a timing information generator that generates timing information for calculating the correction value, and based on the timing information, limits a correction value amount that is the number of times the correction
20 value is calculated, and manages a period for calculating the correction value.

6. The transmission power control apparatus according to claim 1, wherein, when a gain value beyond a dynamic
25 range of the second variable amplifying circuit is calculated, the transmission power calculator receives a feedback signal generated by the set value calculator

and makes the set value calculator calculate the gain value again.

7. The transmission power control apparatus according to claim 2, wherein, when an amplitude value beyond a predetermined amplitude range is calculated, the transmission power calculator receives a feedback signal generated by the amplitude value calculator and makes the set value calculator and the amplitude value calculator calculate the gain value again.

8. The transmission power control apparatus according to claim 1, further comprising:

a first variable amplifying circuit controller that controls the gain value of the first variable amplifying circuit;

a second variable amplifying circuit controller that controls the gain value of the second variable amplifying circuit; and

a gain set value controller that obtains a gain code based on the gain value calculated by the set value calculator and independently controls the first variable amplifying circuit controller and the second variable amplifying circuit controller with the obtained gain code using a predetermined control format.

9. The transmission power control apparatus according

to claim 1, further comprising:

a variable amplifying circuit controller that controls respective gain values of the first variable amplifying circuit and the second variable amplifying
5 circuit; and

a gain set value controller that obtains a gain code based on the gain values calculated by the set value calculator and controls the variable amplifying circuit controller with the obtained gain code using a
10 predetermined control format.

10. The transmission power control apparatus according to claim 2, further comprising:

a first variable amplifying circuit controller that
15 controls the gain value of the first variable amplifying circuit; and

a gain set value controller that obtains a gain code based on the gain value calculated by the set value calculator and independently controls the first variable
20 amplifying circuit controller and the amplitude controller with the obtained gain code using a predetermined control format.